

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An image forming apparatus, provided with a paper feed cassette and an image forming portion, that takes out a recording medium stored in this paper feed cassette sheet by sheet in response to an image forming request and performs image forming in the image forming portion, the image forming apparatus comprising:

a push-out means that can push out the paper feed cassette from an installed state toward an uninstalled state relative to ~~the~~ a main body of the image forming apparatus;

a sheet quantity confirming means that can confirm the number of sheets of the recording medium stored in the paper feed cassette; and

a control means that causes the sheet quantity confirming means to confirm the number of sheets of the recording medium stored in the paper feed cassette when an image forming request has been made, and if the number of sheets of the recording medium stored in the paper feed cassette is lower than the number of sheets necessary to complete an image forming operation in accordance with the image forming request, the control means causes the paper feed cassette to be pushed out from an installed state toward an uninstalled state by the push-out means without commencing the image forming operation, and causes the user to be warned that the number of sheets of the recording medium is insufficient to complete the image forming operation in accordance with the image forming request;-

wherein said image forming apparatus is configured to communicate with a terminal machine;

wherein said image forming apparatus has received said image forming request from said terminal machine; and

wherein said warning is provided at the terminal machine.

2. (Canceled)

3. (Previously Presented) The image forming apparatus according to claim 1, further comprising a paper storage board that supports a recording medium and moves to a lower position as the number of stored sheets of the recording medium increases;

wherein the sheet quantity confirming means confirms the number of sheets of the recording medium stored in the paper feed cassette by detecting a height position of the paper storage board with a reflective optical sensor.

4. (Previously Presented) The image forming apparatus according to claim 1, wherein the paper feed cassette comprises:

a matching portion made of metal that extends in the vertical direction along the edge of the stored recording medium and matches the recording medium; and

a paper storage board made of metal that is movable along this matching portion in the vertical direction while contacting this matching portion and that moves to a lower position as the number of stored sheets of the recording medium increases;

wherein the sheet quantity confirming means lets a current flow from the paper storage board to the matching portion, and confirms the number of sheets of the recording medium stored in the paper feed cassette based on the electrical resistance from the paper storage board to the matching portion, which changes according to the height position of the paper storage board.

5. (Currently Amended) The image forming apparatus according to claim 1, wherein the push-out means comprises:

an engaging mechanism that can switch between an engaged state and a released state of the paper feed cassette relative to the main body of the image forming apparatus; and

a biasing portion that confers a biasing force on the paper feed cassette in the push-out direction; and wherein

when the number of sheets of the recording medium stored in the paper feed cassette is lower than the requested number of image forming sheets, the engaging mechanism

puts the paper feed cassette in a released state relative to the main body of the image forming apparatus.

6. (Previously Presented) The image forming apparatus according to claim 1, wherein the control means, immediately after an image forming request has been received, causes the sheet quantity confirming means to confirm the number of sheets of the recording medium stored in the paper feed cassette, and if the number of sheets of the recording medium stored in the paper feed cassette is lower than the number of sheets requested by the image forming request, the control means causes the paper feed cassette to be pushed out from an installed state toward an uninstalled state by the push-out means without commencing the image forming operation, and causes the user to be warned that the number of sheets of the recording medium is insufficient.

7. (Currently Amended) An image forming apparatus, comprising:
a paper feed cassette configured to contain paper sheets;
a paper sheet quantifier configured to determine the number of paper sheets contained in the paper feed cassette;
an image forming portion configured to form an image on one or more of said paper sheets in response to an image forming request;
a control portion configured to cause, prior to commencement of an image forming job in response to said image forming request, the provision of a warning that the number of paper sheets contained in the paper feed cassette is insufficient to complete said image forming job in response to said image forming request; and
a paper feed cassette ejector configured to push out the paper feed cassette from an installed state toward an uninstalled state relative to a main body of the image forming apparatus;
wherein said image forming apparatus is further structured to withhold commencement of said image forming job if the number of paper sheets contained in the paper feed cassette is insufficient to complete said image forming job in response to said image forming request; and
wherein said control portion is further configured to withhold said commencement of said image forming job by causing said paper feed cassette ejector to push out the paper feed cassette

from an installed state toward an uninstalled state relative to the main body of the image forming apparatus.

8. (Canceled)

9. (Currently Amended) An image forming apparatus in combination with a terminal machine, comprising:

said image forming apparatus comprising:

a paper feed cassette configured to contain paper sheets;

a paper sheet quantifier configured to determine the number of paper sheets contained in the paper feed cassette;

an image forming portion configured to form an image on one or more of said paper sheets in response to an image forming request;

a control portion configured to cause, if the number of paper sheets contained in the paper feed cassette is insufficient to complete an image forming job in response to said image forming request, and prior to commencement of an said image forming job in response to said image forming request, the provision of a warning at said terminal machine that the number of paper sheets contained in the paper feed cassette is insufficient to complete said image forming job in response to said image forming request;

wherein said image forming apparatus is further structured to withhold commencement of said image forming job if the number of paper sheets contained in the paper feed cassette is insufficient to complete said image forming job in response to said image forming request.

10. (Currently Amended) An image-formation warning method comprising:
providing an image forming request from a terminal machine to an image forming apparatus in communication with said terminal machine;

determining at said image forming apparatus a number of paper sheets contained in a paper feed cassette of said image forming apparatus;

providing, if the number of paper sheets contained in the paper feed cassette is insufficient to complete an image forming job in response to said image forming request, and

prior to commencement of ~~an~~said image forming job ~~in response to said image forming request,~~
a warning at said terminal machine that the number of paper sheets contained in the paper feed
cassette is insufficient to complete said image forming job ~~in response to said image forming~~
~~request;~~ and

withholding said commencement of said image forming job if the number of paper sheets
contained in the paper feed cassette is insufficient to complete said image forming job ~~in~~
~~response to said image forming request.~~

11. (Currently Amended) The image-formation warning method of claim 10,
~~wherein~~said withholding of said commencement of said image forming job is
accomplished by pushing out the paper feed cassette from an installed state toward an uninstalled
state relative to a main body of the image forming apparatus.

12. (Currently Amended) The image forming apparatus in combination with a
terminal machine of claim 7~~9~~, wherein:

said paper feed cassette comprises a movable paper storage board supporting said one or
more paper sheets, wherein a position of the paper storage board is dependant upon the number
of paper sheets contained in said paper feed cassette;

wherein said paper sheet quantifier comprises a reflective optical sensor configured to
detect a height of said paper storage board;

wherein said reflective optical sensor comprises a light emitter and a light receiver;

wherein said light emitter is configured to emit light to be reflected from said paper
storage board to said light receiver.

13. (Currently Amended) The image forming apparatus of claim 7, wherein the paper
feed cassette comprises said paper sheet quantifier:

a wherein said paper sheet quantifier comprising~~comprises~~:

a metal portion of said paper feed cassette that extends in the vertical direction
along an edge of said one or more paper sheets contained in said paper feed cassette;

a movable paper storage board supporting said one or more paper sheets, wherein a position of the paper storage board is dependant upon the number of paper sheets contained in said paper feed cassette;

wherein said paper storage board comprises metal and is movable along said portion in the vertical direction while contacting said portion;

wherein electrical resistance between the paper storage board and said metal portion is dependant upon a height position of the paper storage board; and

wherein said paper sheet quantifier is configured to permit a current flow from the paper storage board to said metal portion and to confirm the number of paper sheets contained in the paper feed cassette based on electrical resistance from the paper storage board to said metal portion.

14. (Previously Presented) The image forming apparatus of claim 7, wherein said warning comprises a visual warning.

15. (Previously Presented) The image forming apparatus of claim 7, wherein said warning comprises an auditory warning.

16. (Previously Presented) The image forming apparatus of claim 7, wherein said warning comprises a visual warning and an auditory warning.

17. (Previously Presented) The image forming apparatus of claim 7, wherein said control portion is further configured to withhold commencement of said image forming job if the number of paper sheets contained in the paper feed cassette is insufficient to complete said image forming job in response to said image forming request.

18. (Previously Presented) The image forming apparatus in combination with a terminal machine of claim 9, wherein said control portion is further configured to withhold commencement of said image forming job if the number of paper sheets contained in the paper

feed cassette is insufficient to complete said image forming job in response to said image forming request.

19. (Previously Presented) The image forming apparatus of claim 1, further comprising a warning means configured to emit a warning that the number of sheets of the recording medium is insufficient to complete the image forming operation in accordance with the image forming request.

20. (Currently Amended) The image forming apparatus in combination with a terminal machine of claim 9,

wherein said image forming request is the result of a first work of a user at said terminal machine; and

wherein said control portion is configured to cause said warning to appear at said terminal machine prior to commencement of a second work of said user.

21. (Currently Amended) The image-formation warning method of claim 10,

wherein said image forming request is the result of a first work of a user at said terminal machine; and

wherein said warning is provided at said terminal machine prior to commencement of a second work of said user.

22. (Previously Presented) The image forming apparatus of claim 7, wherein said image forming apparatus is further configured to withhold said commencement of said image forming job by switching between an engaged state and a released state of the paper feed cassette.

23. (Previously Presented) The image-formation warning method of claim 10, wherein said commencement of said image forming job is withheld by switching between an engaged state and a released state of the paper feed cassette.